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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/287,304 04/07/99 YAMAMOTO A 0941.63012

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CHICAGO IL 60606

WM02/0823

EXAMINER

PIZIALI, J

ART UNIT

PAPER NUMBER

2673

DATE MAILED:

08/23/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.

09/287,304

Applicant(s)

YAMAMOTO ET AL.

Examiner

Jeff Piziali

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 01 June 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>9</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on June 1, 2001 have been approved.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Youn (5,856,816).

Regarding claim 1, Youn discloses a liquid crystal display device including a data driver [Fig. 3] and a gate driver [Fig. 2, 3], comprising an LCD panel [Fig. 2, 1]; a substrate on which the LCD panel, the data driver and the gate driver are integrally formed; the data driver being divided into a plurality of blocks so as to divide the LCD panel into section arranged side by side, which simultaneously supply the LCD panel with display signals respectively supplied thereto (Column 1, Line 10 - Column 2, Line 20).

Regarding claim 2, Youn discloses a block comprising a shift register [Fig. 5, 21]; signal lines [Fig. 5, Y] to which the display signals are supplied; data bus lines connected to the signal

Art Unit: 2673

lines and the LCD panel; and analog switches [Fig. 5, 29-30] provided in the data bus lines and controlled by an output signal of the shift register thereto (Column 4, Line 39 - Column 5, Line 38).

Regarding claim 3, Youn discloses a driver device [Fig. 5, 22-23] which receives display data [Fig. 5, D] externally supplied and outputs the display signals derived therefrom to the blocks of the data driver (Column 4, Line 39 - Column 5, Line 21).

Regarding claim 4, Youn discloses a plurality of driver devices [Fig. 5, 22-23] which are respectively associated with a plurality of ones of the blocks, each of the plurality of driver devices receiving display data [Fig. 5, D] externally supplied and outputting the display signals derived therefrom to associated blocks of the data driver (Column 4, Line 39 - Column 5, Line 38).

Regarding claim 5, Youn discloses the display signal lines of the associated blocks have parts extending from one of the plurality of driver devices through a space located between the associated blocks [Fig. 5].

Regarding claim 6, Youn discloses a substrate on which the LCD panel, data driver and gate driver are integrally formed (Column 1, Lines 10-20).

Art Unit: 2673

Regarding claim 7, Youn discloses the data driver comprises polysilicon transistors (Column 1, Lines 10-20).

Regarding claim 8, Youn discloses a display signal supply device [Fig. 5, 22-23] which outputs the display data [Fig. 5, D] to the driver device (Column 4, Line 39 - Column 5, Line 21).

Regarding claim 9, Youn discloses the display signal display device is formed on the LCD panel (Fig. 1; Column 1, Line 10 - Column 2, Line 20).

Regarding claim 10, Youn discloses a display signal supply device [Fig. 5, 22-23] which outputs the display data [Fig. 5, D] to the plurality of driver devices (Column 4, Line 39 - Column 5, Line 21).

Regarding claim 11, Youn discloses each of the plurality of blocks supplies the LCD panel with a given number of display signals at once (Column 4, Line 39 - Column 5, Line 38).

Regarding claim 12, Youn discloses the driver device comprises a shift register [Fig. 5, 21] which outputs a shift signal, first latch circuits [Fig. 5, 22-23] which latch the display data in response to the shift signal, and second latch circuits [Fig. 5, 25-26] which latch the display data from the first latch circuits in response to a latch enable signal externally supplied (Column 4, Line 39 - Column 5, Line 38).

Regarding claim 13, Youn discloses digital-to-analog converters [Fig. 5, 27-28] which convert the display data from the second latch circuits into analog signals (Column 5, Lines 4-13).

Regarding claim 14, Youn discloses a liquid crystal display device including a data driver [Fig. 3] and a gate driver [Fig. 2, 3], comprising an LCD panel [Fig. 2, 1]; and groups of signal lines [Fig. 2, D_n] for carrying display signals, the data driver being divided into a plurality of blocks [Fig. 2, 2a & 2b] from which the groups of signal lines extend over corresponding partial areas [Fig. 2, D_1 - D_{2n-1} & D_2 - D_{2n}] of the LCD panel so that each of the groups of signal lines is associated with a respective one of the blocks of the data driver (Column 1, Line 10 - Column 2, Line 20).

Regarding claim 15, Youn discloses a liquid crystal display device including a data driver [Fig. 3] and a gate driver [Fig. 2, 3], comprising an LCD panel [Fig. 2, 1]; signal lines extending from the data driver [Fig. 2, D_n] the data driver and the signal lines being divided into a plurality of blocks [Fig. 2, 2a & 2b] so that the divided signal lines extending from one of the plurality of blocks extends over a corresponding divided area [Fig. 2, D_1 - D_{2n-1} & D_2 - D_{2n}] of the LCD panel; the divided signal lines in each of the plurality of blocks being adjacent to each other (Column 1, Line 10 - Column 2, Line 20).

Art Unit: 2673

Regarding claim 16, Youn discloses a liquid crystal display device including a data driver [Fig. 3] and a gate driver [Fig. 2, 3], comprising an LCD panel [Fig. 2, 1]; a substrate on which the LCD panel, the data driver and the gate driver are integrally formed; the data driver being divided into a plurality of blocks [Fig. 2, 2a & 2b] arranged side by side along an edge of the LCD panel (Column 1, Line 10 - Column 2, Line 20)

Regarding claim 17, Youn discloses the data driver comprises polysilicon transistors (Column 1, Lines 10-20).

Response to Arguments

4. Applicant's arguments filed June 1, 2001 have been fully considered but they are not persuasive. The applicants contend that Youn does not disclose a data driver divided into a plurality of blocks, so as to divide the LCD panel into sections arranged side by side. The examiner respectfully disagrees. Youn teaches a data driver [Fig. 3] being divided into a plurality of blocks [Fig. 2, 2a & 2b] so as to divide the LCD panel into sections arranged side by side (wherein D₁ is side by side with D₂). Under such reasoning, claims 1-17 stand rejected.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2673

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



J.P.

August 22, 2001



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